KDR Series

Dual Rail LCD Console with Combo-free KVM Switch

User Manual

Rev 1.0

Packing List

The complete KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF / 11908-CF / 11916-CF package consists of:

- One 1U 19” rack mount console
- Long Single Bracket x 2
- Long Assemblied Bracket x 2
- Metal Plate x 2 (For long single bracket)
- Copper Ring x 6 (For long single bracket)
- Flat Screw x 6 (For long single bracket)
- Cap Screw x 28
- Key x 2
- One 1.8M signal cable
- One power cord
- One user manual CD
- One quick installation guide

Check to make sure that the unit was not damaged in shipping. If you encounter a problem, contact your dealer.
Please read this manual thoroughly, and follow the installation and operation procedures carefully to prevent any damage to the product, and / or any of the devices that connect to it.

Safety Instructions

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or clothe for cleaning.
4. For pluggable equipment, the socked-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. Do not leave this equipment in an environment unconditioned, storage temperature above 60^0 C, it may damage the equipment.
8. The opening on the enclosure is for air convection hence the equipment from overheating. DO NOT COVER THE OPENING.
9. Make sure the voltage of the power source connect the equipment to the power outlet.
10. Please keep the power cord such a way that people can not step on it. Do not place anything over power cord. The power cord must rate for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and the current rating marked on the product.
11. All cautions and warning on the equipment should be noted.
12. If the equipment is not in use for long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
13. Never pour any liquid into ventilation openings; this could cause fire or electrical shock.
14. Never open the equipment. For safety reason, qualified service personnel should only open the equipment.
15. If one of the following situations arises, get the equipment checked by service personnel.
    - The Power Cord or plug is damaged.
    - Liquid has penetrated into the equipment.
    - The equipment has been exposed to moisture.
    - The equipment has not worked well or you can not get it work according to User's Manual.

- The equipment has dropped and damaged.
- If the equipment has obvious signs or breakage.

Index of Contents

Packing List I
Safety Instructions II
Index of Contents IV
1. General Information 2
1.1 Overview 2
1.2 Product Specification 3
1.2.1 KDR-11508-CF / 11516-CF Specification 3
1.2.2 KDR-11708-CF / 11716-CF Specification 6
1.2.3 KDR-11908-CF / 11916-CF Specification 9
2. Panel Controls and OSD Function 12
2.1 Auto Tune 12
2.2 Input Source 13
2.3 Brightness 13
2.4 Contrast 14
2.5 Color 14
2.6 Position 15
2.7 Language 16
2.8 Recall 16
2.9 Exit 17
2.10 Power Indicator 17
3. Installation 18
3.1 Install Console into Cabinet 18
3.1.1 Notes 18
3.1.2 Hardware Kits Contents 19
3.1.3 Installation Steps (KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF / 11908-CF / 11916-CF) 21
3.2 Installing the Video Card and Video Driver 24
3.2.1 Configuring the Display Settings 24
4. KVM SWITCH 25
4.1 Introduction 25
4.2 Feature 25
4.3 Technical Specifications 27
4.4 System Requirements 29
4.5 Cable Diagrams 30
4.6 Product Details 31

4.7 Hardware Installation 32
4.7.1 Computer / Server Installation 32
4.7.2 Optional Module Installation 34
4.7.3 CAT5 KVM Receiver (R-Box) 35
4.7.4 CAT5 Receiver Installation 35
4.7.5 When video signal is foggy or unclear 36
4.7.6 Daisy Chain Connection 36
4.7.7 Turning on the Console 37
4.7.8 Testing the Console 37
4.8 Hotkey 39
4.9 OSD (On Screen Display) 41
4.9.1 Login Window 42
4.9.2 Port Name 43
4.9.3 Main Menu 44
4.9.3.1 LANGUAGE 44
4.9.3.2 PORT NAME EDIT 45
4.9.3.3 PORT SEARCH 46
4.9.3.4 USER SECURITY 46
4.9.3.5 ACCESS LIST 47
4.9.3.6 HOTKEY 48
4.9.3.7 TIME SETTINGS 49
4.9.3.8 OSD MOUSE 49

1. General Information

1.1 Overview

The KVM console is an ideal solution for network administration with multiple servers / platforms. Their 15-inch and 17-inch 19-inch large size TFT LCD color display and ultra-low-profile compact industrial keyboard / touchpad provide the user-friendliest and most reliable environment for network administrators. All these functions are integrated in a 19-inch 1U space with rugged construction design to achieve ultra space saving and high reliability for high quality industrial network applications.

The KVM console provide superior picture quality and state-of-the-art features mounted in an industrial grade, rack mount console. The console forms a rugged enclosure that protects the panel from industrial hazards and permits easy access to panel controls.

The KVM console panels provide flicker-free color images at optimal resolutions. The panels' 0.264mm pixel pitch ensures crisp images with clear definition, even at high resolutions. The KVM console panels are intelligent, microprocessor-based, and have an ergonomically designed display.

The KVM console panels employ the latest in active matrix thin film transistor (TFT) technology, providing crisp screen images and wide viewing angles. Unlike CRT panels, LCD panels are inherently immune to the magnetic fields commonly found on the plant floor or communications centers. LCDs are also typically brighter than conventional CRT technology, making them ideal for the high ambient lighting conditions found in many of today's factory environments. On-screen menus allow for display adjustments. In addition, the panels' Plug-n-Play+ features support Windows 95/98,NT and XP, while a universal power supply ensures global applicability.

The KVM console panels are compatible with most analog RGB (red, green, blue) display standards, including PS/2, optional for Sun Micro System, Apple Macintosh Centris, Quadra, and Macintosh II family signals. The LCD panel is capable of displaying crisp and vibrant color graphics with VGA, S2GA, XGA (non-interlaced), and most Macintosh compatible color video cards.

1.2 Product Specification

1.2.1 KDR-11508-CF / 11516-CF Specification

Model name	KDR-11508-CF	
Number of ports	8	
Dimension	569.8 x 443.4 x 44 mm / 22.4 x 17.5 x 1.7 inches	
Package Dimension	728 x 553 x 205 mm / 28.7 x 21.8 x 8.1 inches	
Net Weight	11.5 Kg / 25.4 lbs	
Gross Weight	17.5 Kg / 38.6 lbs	
Display Size	15 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1024 x 768 (XGA)	
Pixel Pitch	Supports 0.297 mm x 0.297 mm	
Viewing Angle (CR>10)	Right-Left View 130°(Typ) Up-Down View 100°(Typ)	
Contrast Ratio	550:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16M Colors (6-bit with FRC)	
Response Time	Rising Time 2 ms , Decay Time 6 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	8 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	10.12W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-1. KDR-11508-CF Specification

Model name	KDR-11516-CF	
Number of ports	16	
Dimension	569.8 x 443.4 x 44 mm / 22.4 x 17.5 x 1.7 inches	
Package Dimension	728 x 553 x 205 mm / 28.7 x 21.8 x 8.1 inches	
Net Weight	12.0 Kg / 26.5 lbs	
Gross Weight	18.0 Kg / 39.7 lbs	
Display Size	15 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1024 x 768 (XGA)	
Pixel Pitch	Supports 0.297 mm x 0.297 mm	
Viewing Angle (CR>10)	Right-Left View 130°(Typ) Up-Down View 100°(Typ)	
Contrast Ratio	550:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16M Colors (6-bit with FRC)	
Response Time	Rising Time 2 ms , Decay Time 6 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	16 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	16W, 10.41W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~122°F Storage -20 ~ 60°C / -4 ~140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-2. KDR-11516-CF Specification

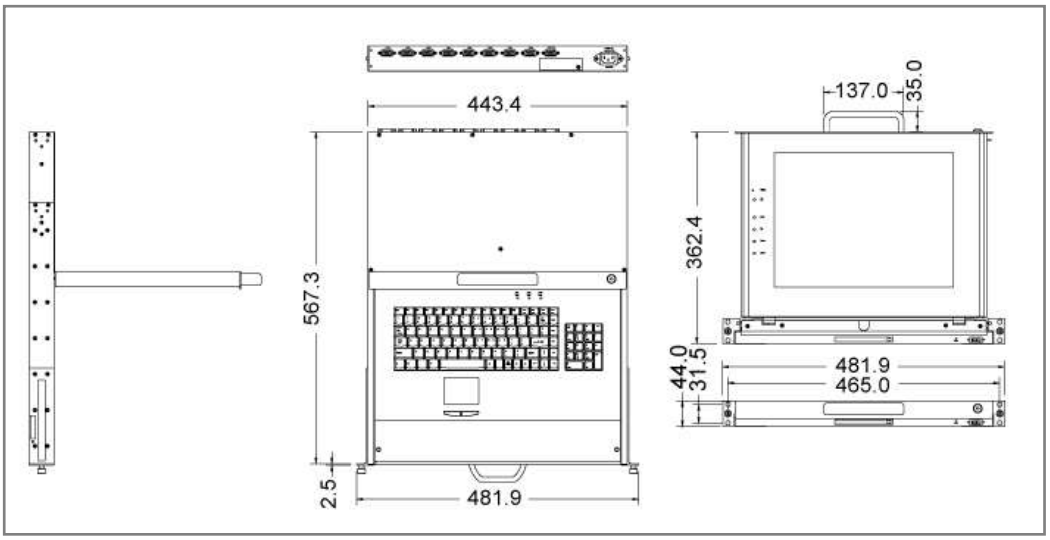


Figure 1-1. KDR-11508-CF Dimension

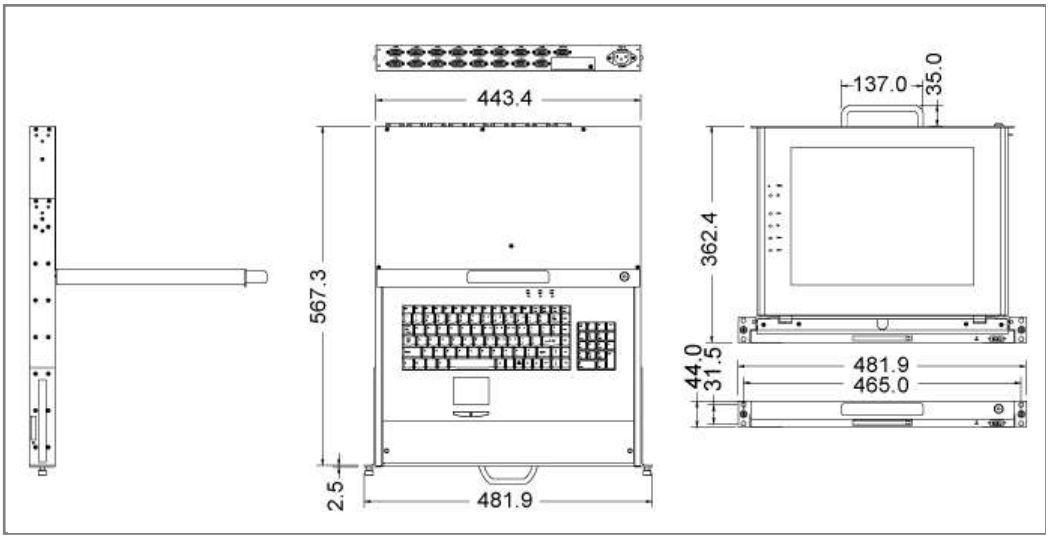


Figure 1-2. KDR-11516-CF Dimension

1.2.2 KDR-11708-CF / 11716-CF Specification

Model name	KDR-11708-CF	
Number of ports	8	
Dimension	569.8 x 443.4 x 44 mm / 22.4 x 17.5 x 1.7 inches	
Package Dimension	728 x 553 x 205 mm / 28.7 x 21.8 x 8.1 inches	
Net Weight	13.0 Kg / 28.7 lbs	
Gross Weight	19.5 Kg / 43.0 lbs	
Display Size	17 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)	
Pixel Pitch	Supports 0.264 mm x 0.264 mm	
Viewing Angle (CR>10)	Right-Left View 170°(Typ) Up-Down View 160°(Typ)	
Contrast Ratio	1000:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16.7M Colors (6-bit with FRC)	
Response Time	Rising Time 3.8 ms , Decay Time 1.2 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	8 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	9.91W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-3. KDR-11708-CF Specification

Model name	KDR-11716-CF	
Number of ports	16	
Dimension	569.8 x 443.4 x 44 mm / 22.4 x 17.5 x 1.7 inches	
Package Dimension	728 x 553 x 205 mm / 28.7 x 21.8 x 8.1 inches	
Net Weight	13.5 Kg / 29.8 lbs	
Gross Weight	20.0 Kg / 44.1 lbs	
Display Size	17 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)	
Pixel Pitch	Supports 0.264 mm x 0.264 mm	
Viewing Angle (CR>10)	Right-Left View 170°(Typ) Up-Down View 160°(Typ)	
Contrast Ratio	1000:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16.7M Colors (6-bit with FRC)	
Response Time	Rising Time 3.8 ms , Decay Time 1.2 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	16 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	9.91W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-4. KDR-11716-CF Specification

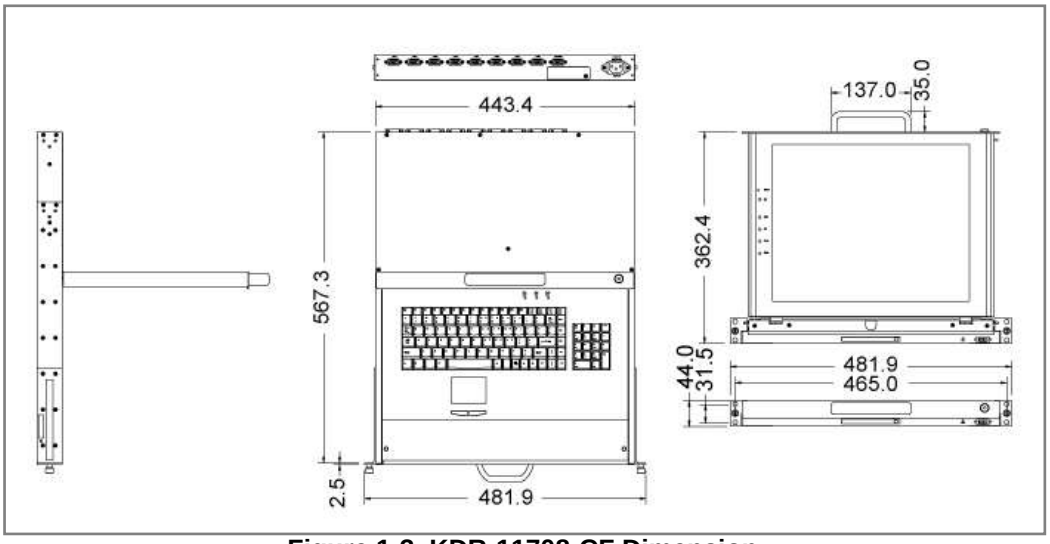


Figure 1-3. KDR-11708-CF Dimension

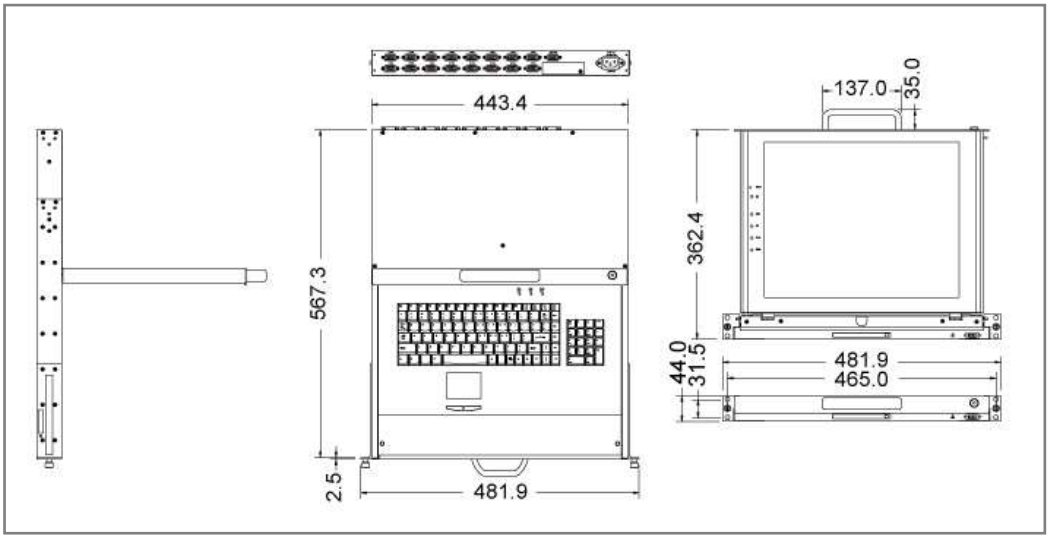


Figure 1-4. KDR-11716-CF Dimension

1.2.3 KDR-11908-CF / 11916-CF Specification

Model name	KDR-11908-CF	
Number of ports	8	
Dimension	631.3 x 443.5 x 44 mm / 24.9 x 17.5 x 1.7 inches	
Package Dimension	788 x 564 x 185 mm / 31.0 x 22.2 x 7.3 inches	
Net Weight	14.0 Kg / 30.9 lbs	
Gross Weight	21.5 Kg / 47.4 lbs	
Display Size	19 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)	
Pixel Pitch	Supports 0.098 mm x 0.294 mm	
Viewing Angle (CR>10)	Right-Left View 170°(Typ) Up-Down View 160°(Typ)	
Contrast Ratio	1000:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16.7M Colors (6-bit with FRC)	
Response Time	Rising Time3.6 ms , Decay Time 1.4 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	8 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	11.03W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-5. KDR-11908-CF Specification

Model name	KDR-11916-CF	
Number of ports	16	
Dimension	631.3 x 443.5 x 44 mm / 24.9 x 17.5 x 1.7 inches	
Package Dimension	788 x 564 x 185 mm / 31.0 x 22.2 x 7.3 inches	
Net Weight	14.5 Kg / 32.0 lbs	
Gross Weight	22.0 Kg / 48.5 lbs	
Display Size	19 inches	
Panel Type	Active Matrix TFT LCD	
Resolution Capabilities	Maximum Resolution up to 1280 x 1024 (SXGA)	
Pixel Pitch	Supports 0.098 mm x 0.294 mm	
Viewing Angle (CR>10)	Right-Left View 170°(Typ) Up-Down View 160°(Typ)	
Contrast Ratio	1000:1	
Brightness	White 250 cd/m² (Center 1 point Typ)	
Back Light	Dual Lamps for Back Light	
Supported Colors	16.7M Colors (6-bit with FRC)	
Response Time	Rising Time 3.6 ms , Decay Time 1.4 ms	
Operating System	Dos, Microsoft Windows, Netware, Unix, Linux, MAC, SUN	
Connectors	PC Port Connectors	16 x HDDB 15-pin
	Daisy Chain Connectors	1 x HDDB 15-pin
	Power Connector	1 x AC Inlet
Signal Cable	KC-1501C	
Keyboard Mouse	106 key PS/2 keyboard with touch pad	
Sync	45 ~ 80 KHz	
Power Source	100 ~ 240 VAC input	
Power Consumption	11.03W for Panel	
Temperature	Operate 0 ~ 50°C / 32 ~ 122°F Storage -20 ~ 60°C / -4 ~ 140°F	
Humidity	10% ~ 90% RH	
Chassis Construction	Heavy duty steel materials	
Keyboard Language	US, UK, German, French, Spanish, Italian, Portuguese, Dutch, Swiss, Belgium, Swedish, Hebrew, Norwegian, Danish, Japanese, Mandarin, Russian, Arabic	

Table 1-6. KDR-11916-CF Specification

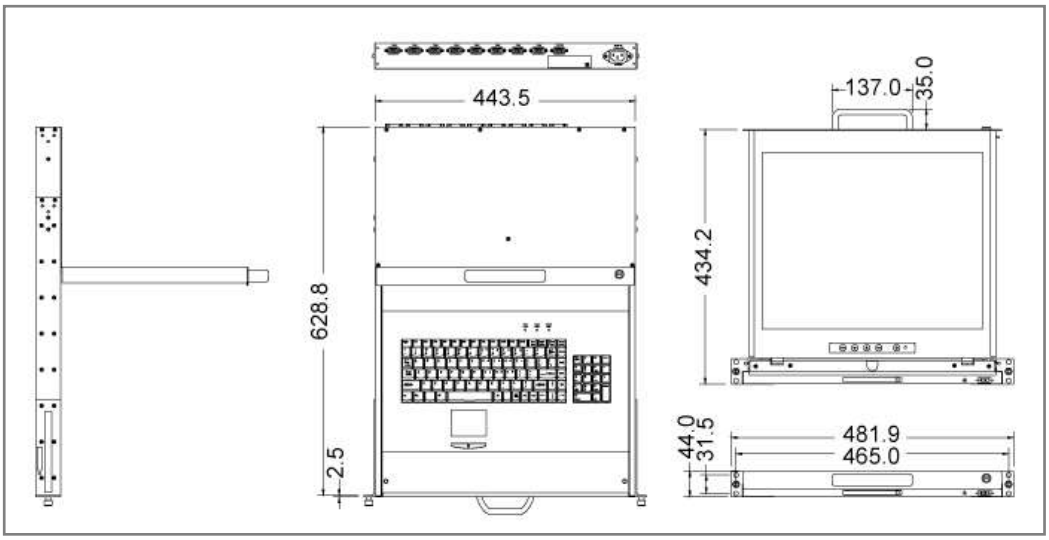


Figure 1-5. KDR-11908-CF Dimension

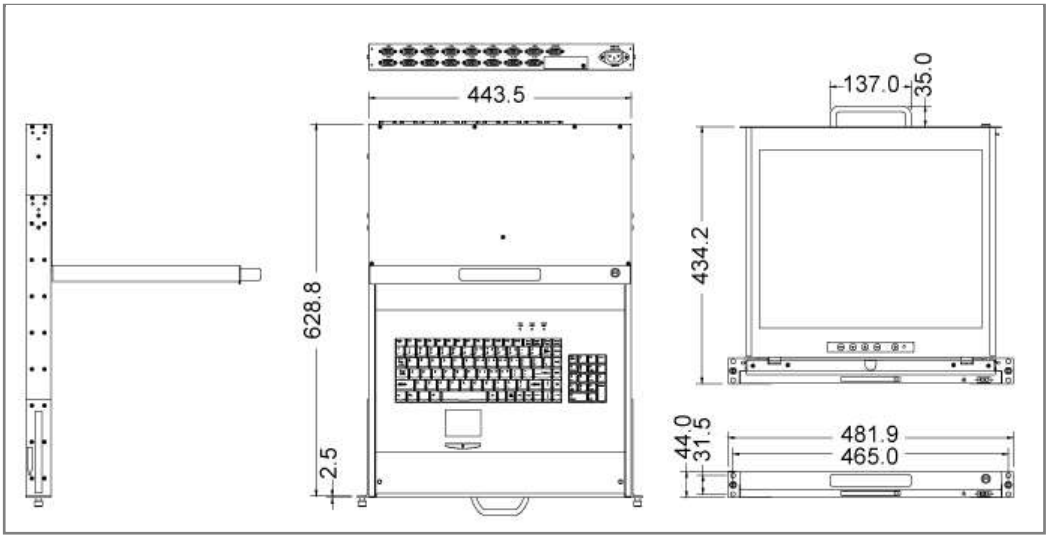


Figure 1-6. KDR-11916-CF Dimension

2. Panel Controls and OSD Function

Controls	Description
⏻	Soft power on/off button. Adjacent LED is lit when on.
Auto	Auto-synchronize and scale down display to any valid factory preset timings.
Up▲	Press to scroll the function you want to adjust.
Down▼	Press to scroll the function you want to adjust.
Menu	To access the main menu. This button also acts as the “Enter” button.

Table 2-1. Panel Controls

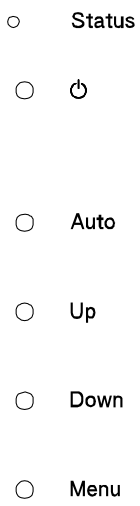


Figure 2-1. KDR-115XX-CF / 117XX-CF OSD Control Bar

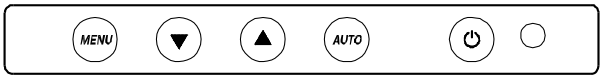


Figure 2-2. KDR-119XX-CF OSD Control Bar

2.1 Auto Tune

Press the “auto tune” button. The panel will adjust the display size automatically and also tune the panel to its best condition.

2.2 Input Source

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit

3. Press the“menu”button to enter,and you will see:

   VGA / DVI
4. Use the “Down” and “Up” button to select the input source of signal.
5. Press the “menu” button to enter

2.3 Brightness

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit
3. Press the“menu”button to enter.
4. Use the“Down”and“Up”button to adjust the brightness of the display.
5. Press the “menu” button to enter.

2.4 Contrast

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

    Auto tune.
    Input Source
    Brightness
    Contrast
    Color
    Position
    Language
    Recall
    Exit

1. Press the “menu” button to enter.
2. Use the “Down” and “Up” button to adjust the contrast of the display.
3. Press the “menu” button to enter.

2.5 Color

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.

    Auto tune.
    Input Source
    Brightness
    Contrast
    Color
    Position
    Language
    Recall
    Exit

3. Press the “menu” button to enter. And you will see:

Icon	Description
9300°K	To set CIE coordinates at 9300°K color
7500°K	To set CIE coordinates at 7500°K color
6500°K	To set CIE coordinates at 6500°K color
User	To set user defined CIE
Auto color	To auto adjust color
Return	To exit and return to the previous page

Table 2-2. Icon Description

4. Use the “Down” and “Up” button to adjust the color of the display.
5. Press “menu” to enter.

2.6 Position

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   - Auto tune.
   - Input Source
   - Brightness
   - Contrast
   - Color
   - **Position**
   - Language
   - Recall
   - Exit
3. Press the “menu” button to enter. And you will see:

Icon	Description
Image Pos	To adjust the position of the image.
OSD Pos	To adjust the position of the OSD.
Return	To exit and return to the previous page

Table 2-3. Icon Description

4. Use the “Down” and “Up” button to scroll.

5. Press the “menu” button to enter.

2.7 Language

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit
3. Press the “menu” button to enter. And you will see:
   English
   German
   French
   Italian
   Spanish
4. Use the “Down” and “Up” button to scroll.
5. Press the “menu” button to enter.

2.8 Recall

1. Press the “menu” button.
2. Use the “Down” and “Up” button to scroll.
   Auto tune.
   Input Source
   Brightness
   Contrast
   Color
   Position
   Language
   Recall
   Exit

3. Press the “menu” button to enter, and you will see:

   Yes/ No

4. Select “Yes” button then ‘Menu” button to recall the factory setting.
   Select “No “ to return to the previous page.

2.9 Exit

Press the “exit” button to quit OSD menu.

2.10 Power Indicator

- GREEN ON
- RED STANDBY
- RED SUSPEND
- RED OFF

OSD – On Screen Display

3. Installation

3.1 Install Console into Cabinet

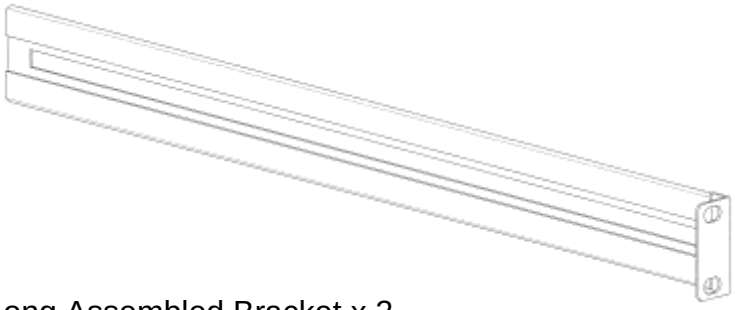
3.1.1 Notes

1. Please check all peripherals according the list before installation.To make sure that the whole unit was not damaged and lost during shipping process.If you encounter any problem,please contact your dealer.
2. Before installation,make sure all peripherals and computers have been turned off.
3. This product required front and rear mounting brackets. Pre-configure the deep of the rack to find the best rear bracket kits for your usage.
4. The standard rear bracket kits are for 590~950 mm - KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF, 655~1015 mm - KDR-11908-CF / 11916-CF) as below figure,contact your dealer if you need more longer rear bracket.
5. Reliable grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit.

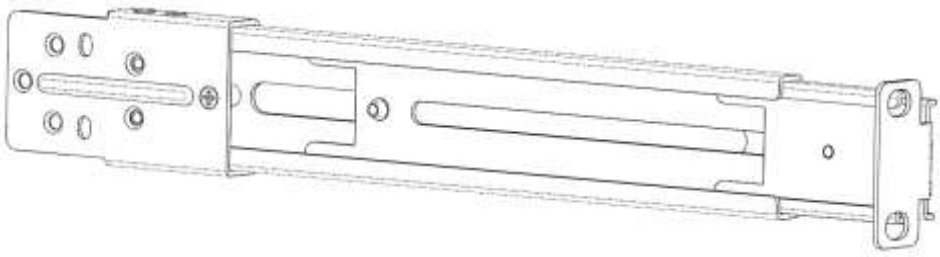
3.1.2 Hardware Kits Contents

Packing contents (KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF / 11908-CF / 11916-CF):

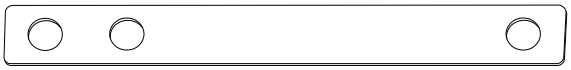
1. Long Single Bracket x 2



2. Long Assembled Bracket x 2



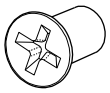
3. Metal Plate x 2 (For long single bracket)



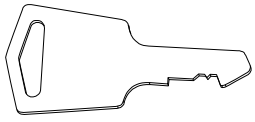
4. Copper Ring x 6 (For long single bracket)

5. Flat Screw x 6 (For long single bracket)

6. Cap Screw x 28



7. Key x 2



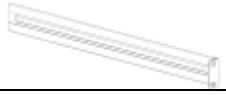
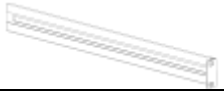
	KDR-11508-CF / 11516-CF KDR-11708-CF / 11716-CF	KDR-11908-CF / 11916-CF
Long single bracket	590-670 mm 	655-730 mm 
Long assembled bracket	655-800 mm	715-865 mm

Table 3-1. Cabinet support depth

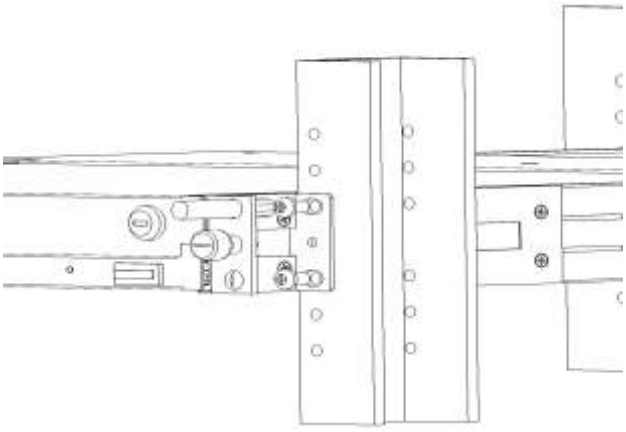
3.1.3 Installation Steps (KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF / 11908-CF / 11916-CF)

Note

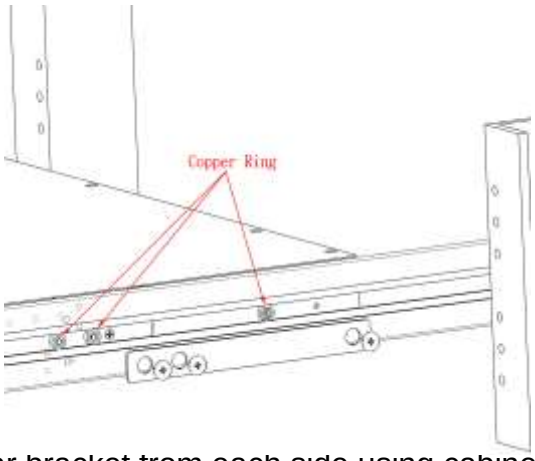
Second person required for rear support during installation

A. Rack Depth 590 ~ 670 mm – KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF (655 ~ 730 mm – KDR-11908-CF / 11916-CF)

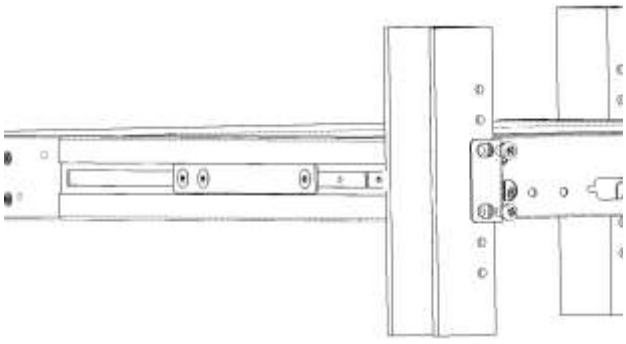
1. Release the thumb screw of front bracket (both side)
2. Install front bracket from each side using cabinet screws



3. Install rear bracket from each side

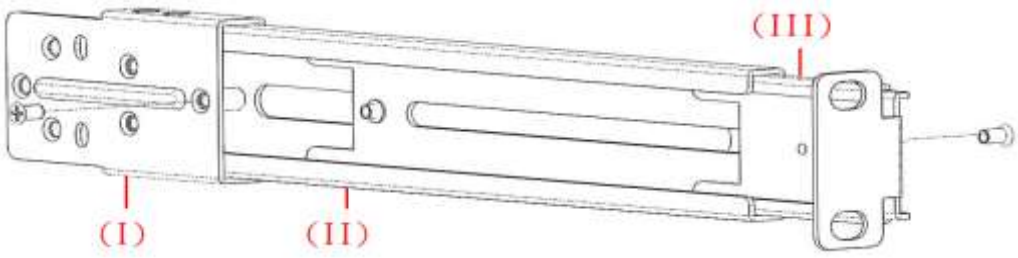


4. Install rear bracket from each side using cabinet screws

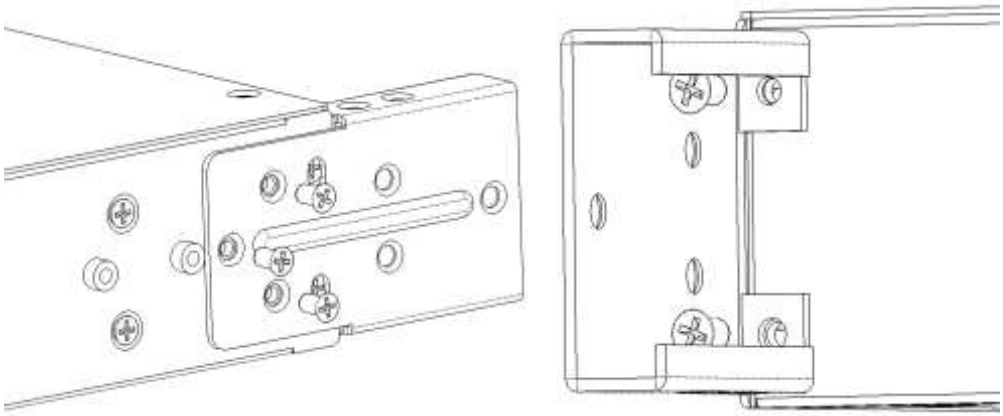


B. Rack Depth Above 655 mm – KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF (Above 715 mm – KDR-11908-CF / 11916-CF)

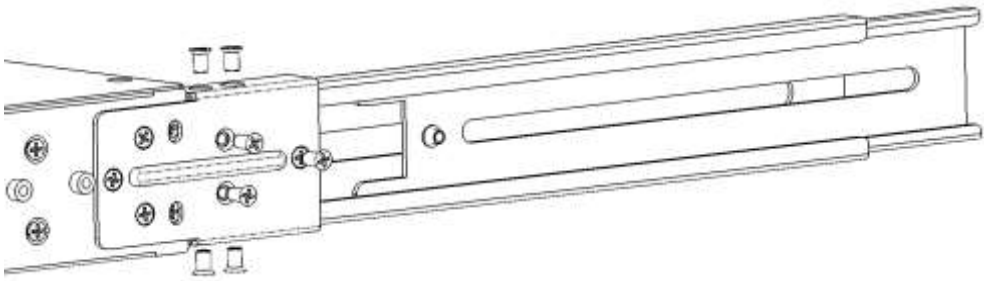
1. Remove the screw of long assemblied bracket and keep screws



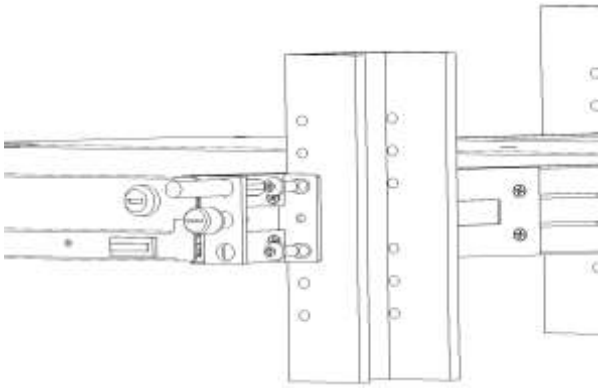
2. Combine (I) to console from each side using cap screw (5 pcs each side)



3. Combine (I) and (II) from each side (7 pcs each side)



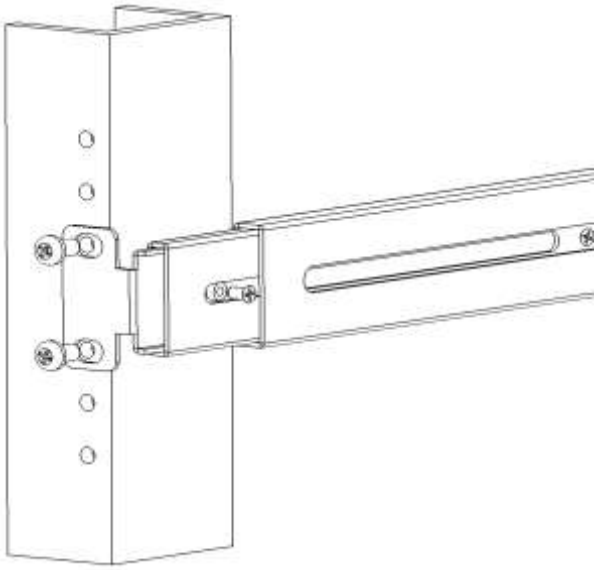
4. Release the Thumb Screw of front bracket and Install front bracket from each side using cabinet screws



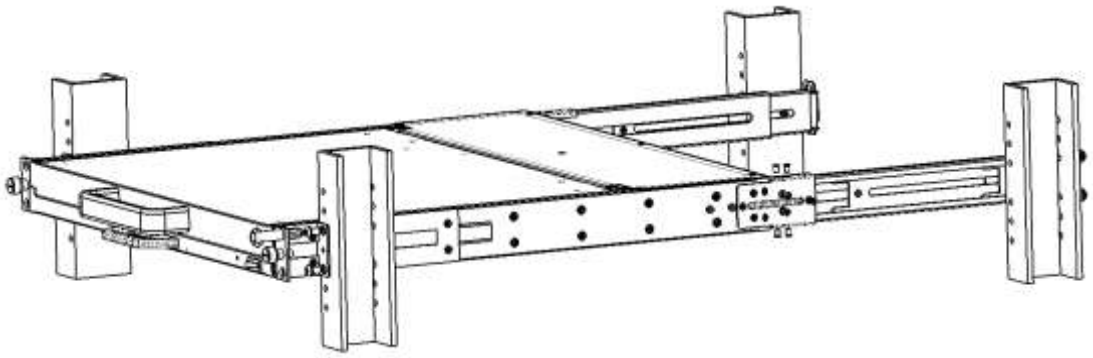
5. Combine (I)+(II) and (III) using the original screw and Install rear bracket from each side using cabinet screws

Note

Please use support bracket to replace (III) when rack depth is more than 805 mm – KDR-11508-CF / 11516-CF / 11708-CF / 11716-CF (865mm – KDR-11908-CF / 11916-CF)



6. Finish Installation as below



7. Attach provided cable and power cord to use

3.2 Installing the Video Card and Video Driver

Before connecting the LCD console, make sure your computer has a video card already installed for the panel. After you connect the console, install the video software driver. The video driver is supplied by the video card manufacturer and may be found on the CD-ROM that came with your computer. If you need information on installing a video card or video driver, refer to the manual that came with your video card.

3.2.1 Configuring the Display Settings

After connecting the console and turning on your computer, you may need to configure one or more of the following display settings:

- Display mode (also called desktop area or video resolution)
- Refresh rate (also called vertical scan rate or vertical sync)
- Color depth (also called color palette or number of colors)

Each video card has several controls that let you adjust the display settings. However, the software and driver for each video card is unique. In most cases, you adjust these settings by using a program or utility provided by the manufacturer of the video card. Most video cards use the Windows Display Properties control panel to configure the display. To open the Windows Display Properties, click the right mouse button in a blank area of the Windows desktop and then select **Properties.** The Settings tab usually lets you change the Color Palette and the Desktop Area *(x by y* pixel resolution).

Some video cards integrate additional features into the Windows Display Properties control panel to give you an exceptional setup that is flexible and easy to use. For example, the control panel may include an Advanced Properties button, an Adjustment tab, or a Refresh tab for changing other settings. Other video cards have a separate utility for setting display properties.

Whenever you change the resolution, color, or refresh rate, the image size, position, or shape may change. This behavior is normal. You can readjust the image using the panel on-screen controls. For more information on the panel on-screen controls, refer to Chapter 2. For more information on configuring the display settings, refer to the manual that came with your video card.

4. KVM SWITCH

4.1 Introduction

The combo-free KVM switch can control attaching servers and computers from local or remote console. This KVM switch is loaded with features such as **one local console port, plus one optional CAT5-based remote console port or one optional IP-based remote console Port,** On Screen Display (OSD) Menu, Password security, Hot key Control, Push Button and Auto Scan Control. It has complete keyboard and mouse emulation for simultaneous PCs boot-up process.

With the CAT5-based remote console port you can you remotely control servers and computers 1000 feet away. In other words, you can locate your monitor, keyboard and mouse up to 1000 feet away from the KVM switch. The built-in CAT5 transmitter synthesizes VGA monitor and keyboard / mouse signals, and transmit the signals to the remote CAT5 receiver over the popular LAN CAT5 cable.

With the IP-based remote console port you can control one or many computers locally at the server site or remotely via the Internet using a standard browser. You can securely gain BIOS level access to systems for maintenance, support, or failure recovery over the Internet. Communication is secure via SSL encryption.

4.2 Feature

- Dual Console 8 / 16 ports KVM switch
- Support combo interface for connecting to computer ports conveniently
- Support one local console plus one optional remote console (CAT5 or IP)
- CAT5 console up to 1000 feet away from KVM switch with superior **auto-adjust** RGB gain / delay control capability
- Support MS windows, Netware, Unix, and Linux
- Support iMAC, Power MAC and Sun Micro Systems with USB port
- No Software Required --- easy computer selection via On Screen Display (OSD) Menu, Push Buttons, and Hotkeys
- Provide various Hotkey (Scroll-Lock / Cap-Lock / Num-Lock / L-Alt / L-Ctrl / L-Win / R-Alt / R-Ctrl / R-Win) for switching computer port and other

control functions, so Hotkey function can be used in various types of keyboards, and to avoid Hotkey duplicate problem.

- Provide ACL (Access Control List) security function. Store up to 8 independent user accounts
- Hot Plug --- add or remove connected computers without powering off the LCD console or computers
- Support two user layers, and search computer / server name
- Plug-n-Play monitor support
- Keyboard status restored when switching computer
- Support Daisy Chain function with both Bus (8-layer) and Tree (2-layer) topologies

4.3 Technical Specifications

Feature	KDR-11508-CF / 11708-CF / 11908-CF	KDR-11516-CF / 11716-CF / 11916-CF
PC Ports	8	16
PC Port Connector	HDDB 15-pin	
Max. Distance (KVM switch -- Host)	10 m (32 feet)	
Video Resolution (Local Console)	By LCD console panel video resolution Maximum up to 1280 x 1024	
Video Resolution (Remote Console)	1600 x 1200 for CAT5-Based 500 feet remote console (R-Box), 1024 x 768 for CAT5-Based 1000 feet remote console. (R-Box Enhanced), 1600 x 1200 for IP-Based remote console	
CAT5-Based Remote Console Module	RJ-45 Connector, CAT5 console up to 1000 feet away from KVM switch with superior, auto-adjust RGB gain/delay control capability	
IP-Based Remote Module	RJ-45 8P8C for 10 / 100M Ethernet, DB9 male for Modem, Null modem and serial power control, Mini USB 2.0 receptacle	
Daisy Chaining	Support Daisy Chaining with both Bus (8-layer) and Tree (2-layer) topologies, Connector: HDDB 15-pin female type	
Computer port selection	On Screen Display (OSD) Menu, Hot Key	
Hotkey	Provide various Hotkey (Scroll-Lock / Cap-Lock / Num-Lock / Alt / Ctrl / Win)	
Security	Provide ACL (Access Control List) security function, store up to 8 independent controllable Computers lists	
Multilingual OSD (On Screen Display) control	8 languages (English, France, Germen, Spanish, Italian, Russian, Japanese, Simplified Chinese)	

Auto-Scan Intervals	5 ~ 99 Sec.
Keyboard Emulation	PS/2 or USB
Mouse Emulation	PS/2 or USB

Table 4-1. Technical Specification

4.4 System Requirements

Model No.	KDR-11508-CF / 11708-CF / 11908-CF
Computer side	8 x HDDB 15-pin male to one HDDB 15-pin with two Mini Din 6-pin and one USB adapter
IP module	1 x CAT5 cable Network access environment
CAT5 module	1 x CAT5 cable R-Box (CAT5 KVM extender receiver) 1 x VGA Monitor 1 x USB Keyboard 1 x USB Mouse Optional computer

Table 4-2. System Requirements

Model No.	KDR-11516-CF / 11716-CF / 11916-CF
Computer side	16 x HDDB 15-pin male to one HDDB 15-pin with two Mini Din 6-pin and one USB adapter
IP module	1 x CAT5 cable Network access environment
CAT5 module	1 x CAT5 cable R-Box (CAT5 KVM extender receiver) 1 x VGA Monitor 1 x USB Keyboard 1 x USB Mouse Optional computer

Table 4-3. System Requirements

4.5 Cable Diagrams

PC Port Special Cable:

HDDB 15-pin male to one HDDB 15-pin male (VGA) with two Mini Din 6-pin (PS/2)

Figure 4-1. HDDB 15-pin / VGA + PS/2 x 2 (1.8M)

PS/2 Keyboard to USB Adapter

PS/2 keyboard to USB keyboard and mouse due HID adapter

Figure 4-2. PS/2 Keyboard to USB Adapter

Daisy Chain Cable:

VGA Cable:

HDDB 15-pin Male to Male

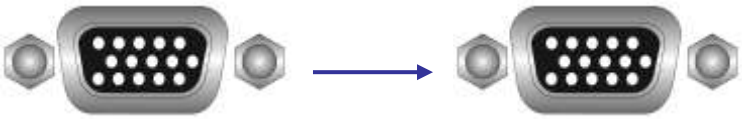


Figure 4-3. Daisy Chain Cable

Note

Daisy chain needs the cable all 15 lines connected. This is a special VGA cable, normal VGA cable has unconnected lines. **Do not use other VGA cable for daisy chain.**

CAT5/5E/6 Straight Through UTP/STP Cable

Pin	Wire Color	Pair	Function
1	White/Orange	2	T
2	Orange	2	R
3	White/Green	3	T
4	Blue	1	R
5	White/Blue	1	T
6	Green	3	R
7	White/Brown	4	T
8	Brown	4	R

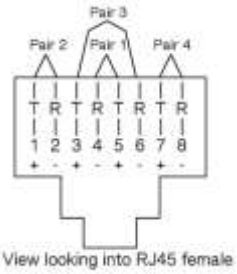


Figure 4-4. CAT5/5E/6 Straight Through UTP/STP Cable (8P8C)

4.6 Product Details

Rear panel of KDR-11508-CF / 11708-CF / 11908-CF:

Rear panel of KDR-11516-CF / 11716-CF / 11916-CF:

Rear panel of KDR-11508-CF / 11708-CF / 11908-CF with IP module:

Rear panel of KDR-11516-CF / 11716-CF / 11916-CF with IP module:

Rear panel of KDR-11508-CF / 11708-CF / 11908-CF with CAT5 module:

Rear panel of KDR-11516-CF / 11716-CF / 11916-CF with CAT5 module:

Figure 4-5. Rear Panel

KDR-11508-CF with CAT5 module:

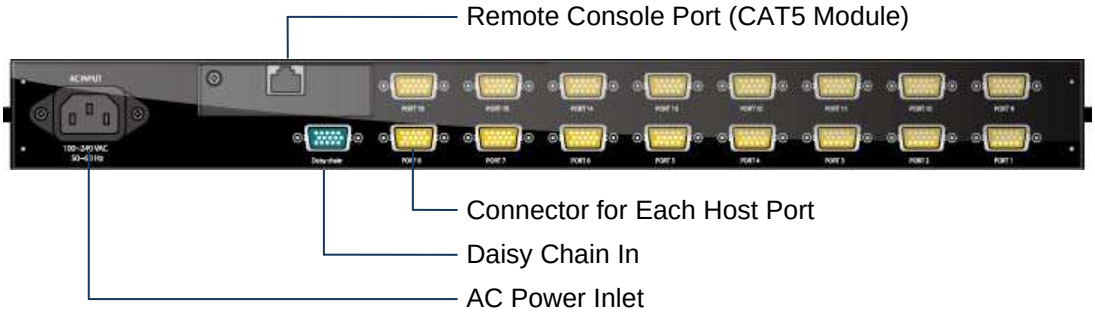


Figure 4-6. Rear Panel

4.7 Hardware Installation

Before installation, please make sure all of peripherals and computers have been turned off. This example of installation is based on 8 port console and you also can think that 16 port console have the same installation procedures.

4.7.1 Computer / Server Installation

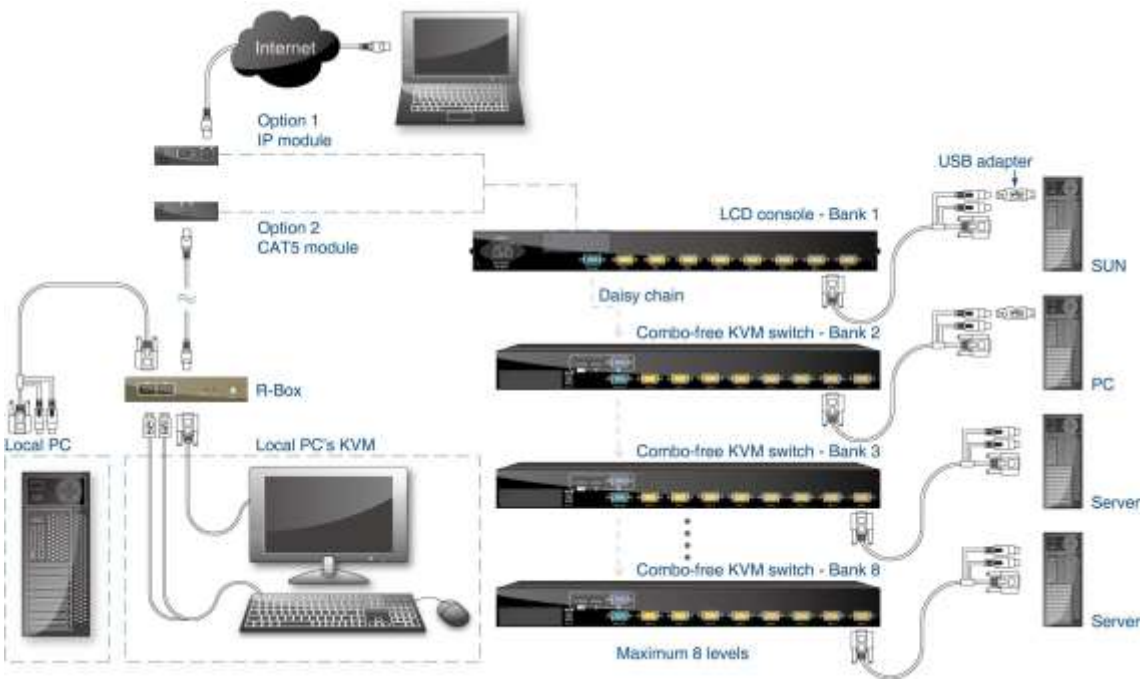


Figure 4-7. Computer / Server Installation

3-in-1 HDDB 15-pin Cable Installation

Each computer port connector is HDDB 15-pin type. Inspect the 3-in-1 HDDB 15-pin cable. It will have a HDDB 15-pin male connector at one end. Plug it into computer port on the rear of LCD console. The other end of input cable has three connectors: a HDDB 15-pin male type for computer video, a purple mini din 6-pin PS/2 connector for keyboard and a green mini din 6-pin PS/2 connector for mouse. Plug these three connectors into the respective ports of computer. Repeat the same procedure for all other computers.

a. PS/2 computer --- Plug PS/2 mouse connector to computer mouse port and PS/2 keyboard connector to computer keyboard port. Do not hot plug PS/2 port. If you must do that make sure PS/2 mouse first then the PS/2 keyboard.

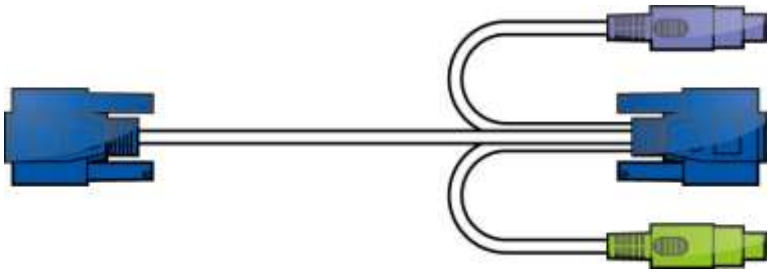


Figure 4-8. 3-in-1 HDDB 15-pin Cable

b. USB computer --- Connect PS/2 connector of 3-in-1 HDDB 15-pin cable and USB adapter. Plug USB connector to computer USB connector. This single USB connector can handle both keyboard and mouse data, it work as a standard HID (Human Interface Device) no extra driver needed.

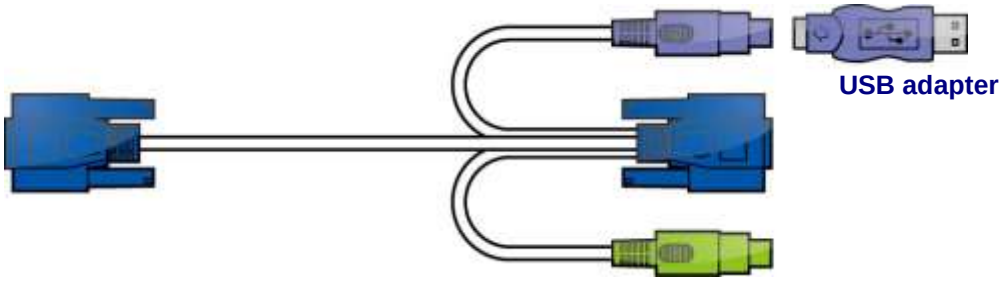


Figure 4-9. 3-in-1 HDDB 15-pin Cable with USB Adapter

4.7.2 Optional Module Installation

IP Module

Please refer to “IP KVM Module User Manual” for details.

IP Remote Console

Installation: Power off the LCD console firstly. Remove the cover of the add-on slot, slide in the IP Module and make sure the module is fully inserted into the slot.

The IP Module redirects local keyboard, mouse and video data to a remote administration console. It allows you to control one or many computers locally at the server site or remotely via the Internet using a standard browser.

Figure 4-10. IP Module Installation

CAT5 Module

CAT5 Remote Console

Installation: Power off the LCD console firstly. Remove the cover of the add-on slot, slide in the CAT5 transmitter module and make sure the module is fully inserted into the slot.

To extending your console up to 1000 feet away by connecting the CAT5 cable to the R-Box in the remote end.

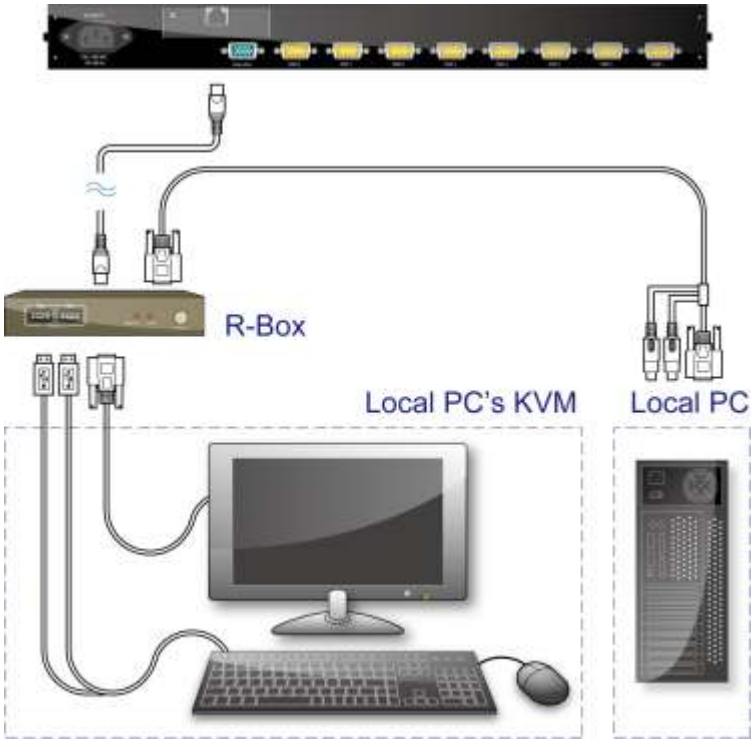


Figure 4-11. CAT5 Module Installation

4.7.3 CAT5 KVM Receiver (R-Box)

The CAT5 KVM receiver (R-Box) uses CAT5 cable to extend your keyboard, mouse and monitor 1000 feet (300 meters) away from the KVM switch. It also has built-in 2-to-1 OSD KVM switch for selecting remote or local Computer.

4.7.4 CAT5 Receiver Installation

1. Make sure the CAT5 cable is straight through type.
2. Plug one end of CAT5 cable into RJ-45 connector of the KVM switch CAT5 console port, and plug the other end of CAT5 cable into RJ-45 port of the R-Box.
3. Connect keyboard, mouse and monitor to the R-Box console ports (USB Keyboard / Mouse ports, and VGA port)
4. Connect Local Computer to R-box with the accompanied 3-in-1 HDDB 15-pin cable.
5. Power on the R-Box by plugging in the power adaptor

6. Push the **SELECT** button to select remote or local Computer.

4.7.5 When video signal is foggy or unclear

The R-Box (CAT5 Receiver) enables user to access to the computer, server, or KVM switch up to 1000 feet (300 meters) away with superior auto-adjust RGB gain / delay control capability
CAT5 cables has CAT5, CAT5e, CAT6 and STP / UTP types; If your application need high VGA resolution and long distance please select high end cables.
It is highly recommended to use optimal CAT5 cable length to get the best video quality and not waste unnecessary CAT5 cable.

4.7.6 Daisy Chain Connection

Use one end of daisy chain cable to connect to the **Daisy Chain port** of LCD console and connect the other end of daisy chain cable to the **Local Console port** of the next Slave KVM switch. Please repeat the connection procedures for next Slave KVM switch. You can daisy chain up to eight banks in maximum.

Figure 4-12. Daisy Chain Connection

The OSD menu will show only the port information of the LCD console. When the master unit starts up, it will query all daisy chained Slave units, and automatically set up the Bank ID for each Slave unit. For stand alone KVM switch, the 7-seg LED on the Master unit will display 1, Slave 1 will display 2, Slave 2 will display 3, and so on. If not so, please **reset** (press "BANK" and port button) the Master unit to update the Bank ID immediately. Hot Plug function is supported in daisy chain connection. The Master unit will auto-query the daisy chained Slaves every 30 seconds.

4.7.7 Turning on the Console

Make sure all cables and the power cord are connected properly. Be sure to tighten all connector screws. Grab the front handle of the panel. Pull the panel all the way out then lift the panel up. This will disengage the momentary on/off switch and the unit should power on. And check on/off switch in the front of keyboard plate is on. The LED left or underneath of the panel will be green light. Then grab the handle of keyboard to pull the keyboard all the way out.

4.7.8 Testing the Console

To test that the console is working properly, perform the following steps:

1. Power up the console, and then turn on your computer.
2. Make sure the video image is centered within the screen area. Use the OSD controls to adjust the image (see note below) or press the Auto button on the left or underneath of the panel.

If the unit does not power on when the panel is pulled up, try to push the power on/off button underneath or on the left of the LCD panel to power up the unit.

You can adjust the horizontal and vertical position, contrast, and brightness to better suit your video card and your personal preference. Refer to Chapter 2 for more information on using the on-screen menu to adjust the video display

Before you begin, make sure that powers to all the devices you will be connecting up have been turned off. To prevent damage to your installation due to ground potential difference, make sure that all the

devices on the installation are properly grounded. Consult your direct vendor for any technical issues if necessary.

4.8 Hotkey

You can also conveniently command KVM switch by switching ports through simple key sequences. The default hot key is **SCROLL LOCK** and the user could change hot key as your convenient application. If you prefer to use some hot key, please go to OSD menu and change the default hot key to the other. To send commands to KVM switch, the **SCROLL LOCK** key must be pressed twice within 2 seconds. You will hear a beep for confirmation and the keyboard is in Hotkey mode. Then you have to enter **Command i**n 2 seconds. If you have not pressed any key during Hotkey mode over 2 seconds the Hotkey mode will be escaped and back to Operation System control state.
A Command should be issued in Hotkey mode in 2 seconds.

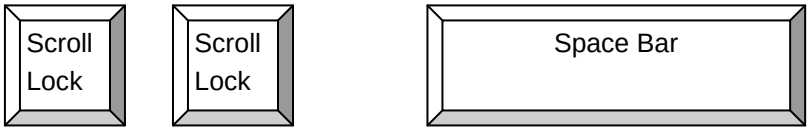


Figure 4-13. Hotkey

Command	Function
Space bar	Active OSD
↑	Previous Channel
↓	Next Channel
[1.2,…,8] bank, [01,02,…,16] port	First digit bank number start with 1 Second and third digits port number start with “01”
PgUp	Previous bank
PgDn	Next bank
“B”	Turn on / off beeper
“S”	Auto Scan
“U”	Console Security “ON” to “OFF”
“P”	User logout / login
“R”	OSD setting back to factory default value
“L”	Turn on / off power saving

Table 4-4. Hotkey

Example: hitting Scroll Lock twice then hitting key 1, key 0, and key 1 will switch to bank 1 port 01. The first port is local at bottom right at the back panel.

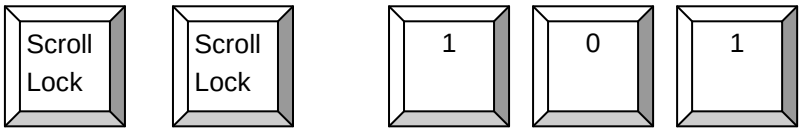


Figure 4-14. Hotkey Example

There are two methods to activate the OSD menu.

1. Activate OSD by Mouse
   Hold the left mouse button press and release the Esc key will active the Port Display. Hold the right mouse button press and release the Esc key will active the OSD.
2. Active OSD by press Hotkey twice then press Space bar.

4.9 OSD (On Screen Display)

On Screen Display Menu provides a menu driven interface to handle a Multilingual Menu, Access Security, Computers switching process, to name a PC name or server name, to set up the password / window display time and to search PC port name if you don't remember it.
It allows two console users to access the same PC and only one of users has been linked to this PC first, another user can only view the same PC.
This OSD Menu has 3 tiers dialog window:
1. **Login Window** --- When powering on this LCD console, it will prompt a login window and ask for user name and password. This KVM system can setup one SUPERVISOR and eight USERS. Before not setting up administrator user's name and his password, none of administrator users could access OSD menu. When you login with Supervisor, please go to USER SECURITY to set up one new SUPERVISOR or USERS. SUPERVISOR can access all Main menu options. USER can access PORT NAME and PORT SEARCH for switching.
2. **Port Name**--- port switching using OSD
3. **Main Menu**--- 8 menus to operate this KVM switch

MAIN MENU	Function
01 LANGUAGE	OSD language change
02 PORT NAME EDIT	PORT NAME modification
03 PORT SEARCH	quick searching by port name
04 USER SECURITY	Change password
05 ACCESS LIST	Define user access authority
06 HOT KEY	Change Hotkeys
07 TIME SETTINGS	Modify SCAN time interval
08 OSD MOUSE	Modify OSD MOUSE speed

Table 4-5. OSD Main Menu

4.9.1 Login Window

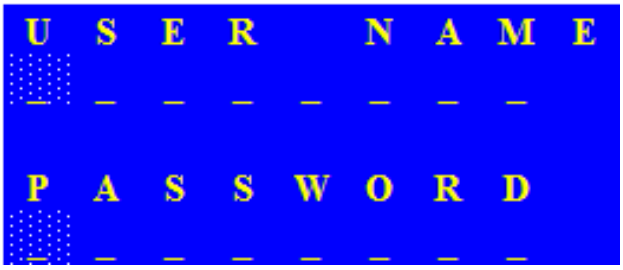


Figure 4-15. Login Window

Turn on local console monitor and power on by plug in the power adapter, there will be login window at screen. No input for username and password over 1 minute at login windows the monitor's signal will be turn off. The default SUPERVISOR user name is all eight zero digits "00000000 "..
The password is all eight zero digits "00000000 ". . .

After login on or port switch either by panel button, OSD or Hotkey, the screen will display the following information, one digit BANK NUMBER, two digit PORT NUMBER, PORT NAME and current Hotkey, any input or mouse move the screen will back to PC.

Figure 4-16. Login Window

Security Logout

No input for username and password over 1 minute at login windows the console monitor's signal will be turn off.
At normal operation, no input from console keyboard or mouse over 10 minutes the LCD console will turn off the screen display then go to Login Windows ask for user name and password.

4.9.2 Port Name

Figure 4-17. Port Name

OSD Function Key	Description
F1	Go to Main Menu
F2	CONSOLE OFF
F3	Previous Menu
Enter	Switch to Selected Port
↑ / ↓	Move Select
PgUp	Previous Bank
PgDn	Next bank
Esc	Quit
1	Show port 01 ~ 08
2	Show port 09 ~ 16
3	Show port 17 ~ 24
4	Show port 25 ~ 32

Table 4-6. OSD Function Key

CONSOLE OFF – logout so the next person needs to enter user name and password in order to do operation on this KVM system

USER: There are two type of user SUPERVISOR and USER. SUPERVISOR can setup the change the OSD settings at Main Menu. USER can do Port switch and Port Search only.

4.9.3 Main Menu

Figure 4-18. Main Menu

OSD Function Key	Description
Enter	Select
↑ / ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-7. OSD Function Key

4.9.3.1 LANGUAGE

The default language is ENGLISH. Moving the cursor by keyboard -- Up Arrow key "⬆"or the Down Arrow key "⬇"or mouse to select language as you need.

Figure 4-19. Language

4.9.3.2 PORT NAME EDIT

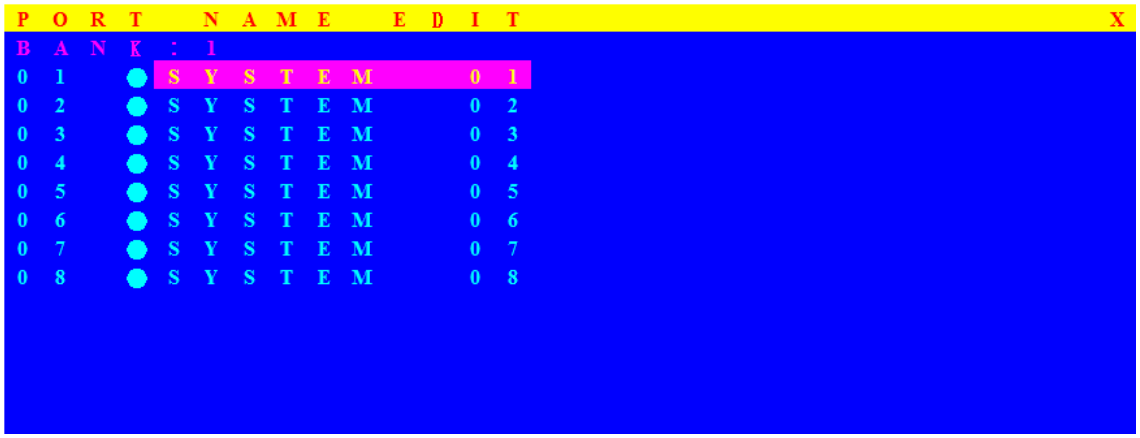


Figure 4-20. Port Name Edit

OSD Function Key	Description
Enter	Port Name Edit
↑ / ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit
1	Show port 01 ~ 08
2	Show port 09 ~ 16
3	Show port 17 ~ 24
4	Show port 25 ~ 32

Table 4-8. OSD Function Key

The first line bar is Bank number, following lines are port name list.
Use Up Arrow key "⬆", Down Arrow key "⬇" or OSD MOUSE to move. After you have selected the PC port already, you can either press the Enter" ↵ "Key, or Move the cursor to PC name double clicks the left button of mouse to switch the PC port immediately. Press PgUp key or PgDn key for selecting previous or next Bank.
Press the Up Arrow key "⬆" or the Down Arrow key"⬇" to select "system 02 " and press Enter"↵ " key to switch current PC port to PC port 2, or moving cursor to SYSTEM 02 and double clicks the left button of mouse to switch current PC port to PC port 2.

Press “ **Ins**” key or click the right button of mouse for editing PC name.
Press “ **Esc**” key to cancel editing PC name without any change or Enter” ↵ ” key to complete the new PC name.

4.9.3.3 PORT SEARCH

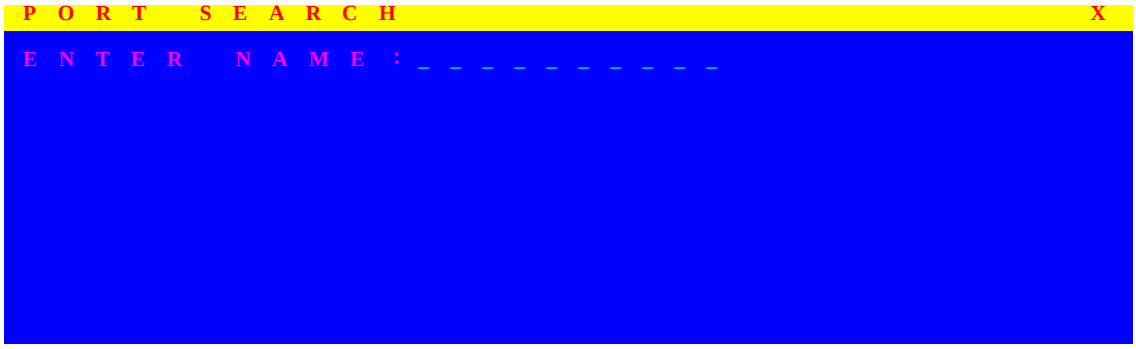


Figure 4-21. Port Search

OSD Function Key	Description
Enter	Start Port Search
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-9. OSD Function Key

Search the computer by port name. Enter “*” will show the all the port.

4.9.3.4 USER SECURITY

At USER SERCURITY of OSD can setup one SUPERVISOR and eight ADMINISTRATORS all with 8 digits name and password.

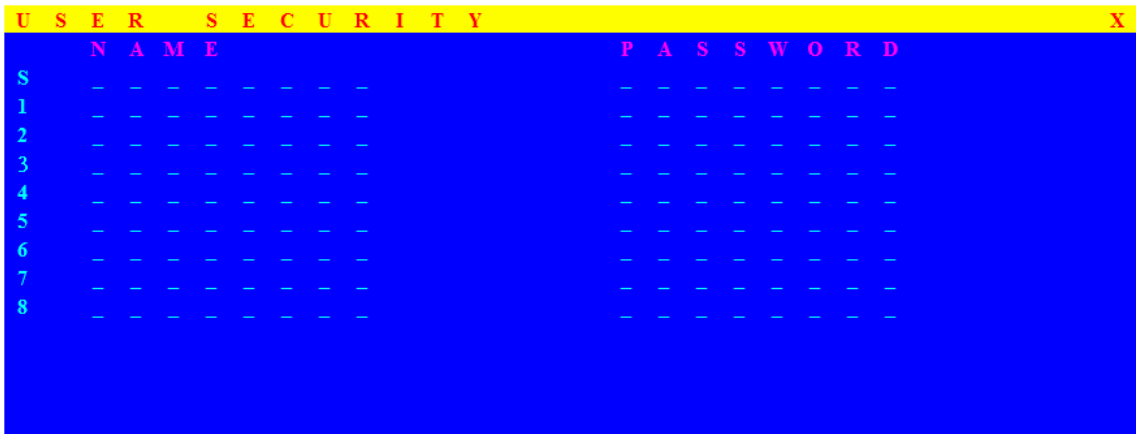


Figure 4-22. User Security

OSD Function Key	Description
Enter	Enter user name
→ ↑ ← ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-10. OSD Function Key

Press “ENTER” key to get USERS list. The left column “S” means SUPERVISOR and “1”, “2”,“3”,…., “8” mean ADMINISTRATOR. The maximum NAME is eight characters maximum (A~Z and 0~9) and PASSWORD is eight characters maximum (A~Z and 0~9).

4.9.3.5 ACCESS LIST

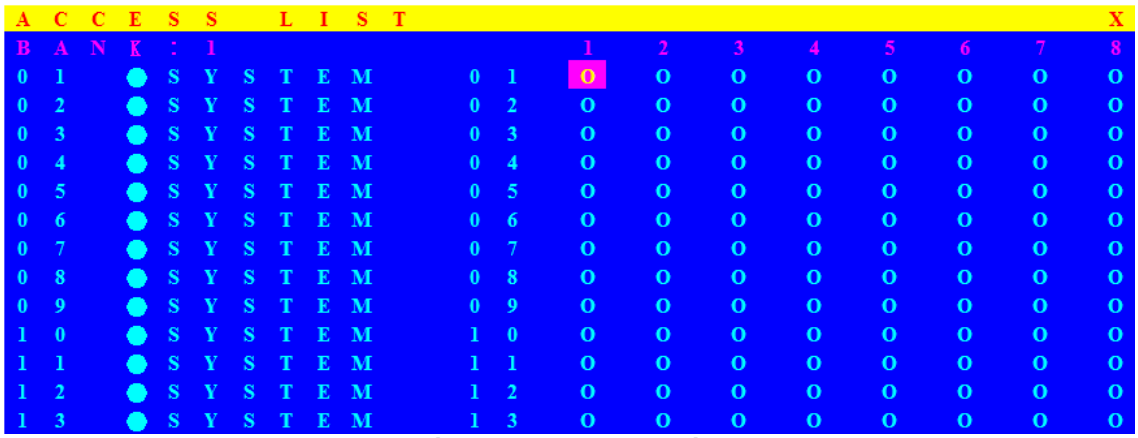

ACCESS LIST
X
BANK: 1
1 2 3 4 5 6 7 8
01 SYSTEM 01 O O O O O O O O
02 SYSTEM 02 O O O O O O O O
03 SYSTEM 03 O O O O O O O O
04 SYSTEM 04 O O O O O O O O
05 SYSTEM 05 O O O O O O O O
06 SYSTEM 06 O O O O O O O O
07 SYSTEM 07 O O O O O O O O
08 SYSTEM 08 O O O O O O O O
09 SYSTEM 09 O O O O O O O O
10 SYSTEM 10 O O O O O O O O
11 SYSTEM 11 O O O O O O O O
12 SYSTEM 12 O O O O O O O O
13 SYSTEM 13 O O O O O O O O

Figure 4-23. Access List

OSD Function Key	Description
Enter	Select
→ ↑ ← ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-11. OSD Function Key

Only SUPERVISOR can set up the ACCESS LIST. The first column is the PC name list the following 8 column the access right of each ADMINISTRATOR use OSD MOUSE or Enter key to active / inactive the access right of each port. “X” means to disable access and “O” means to enable access.

4.9.3.6 HOTKEY

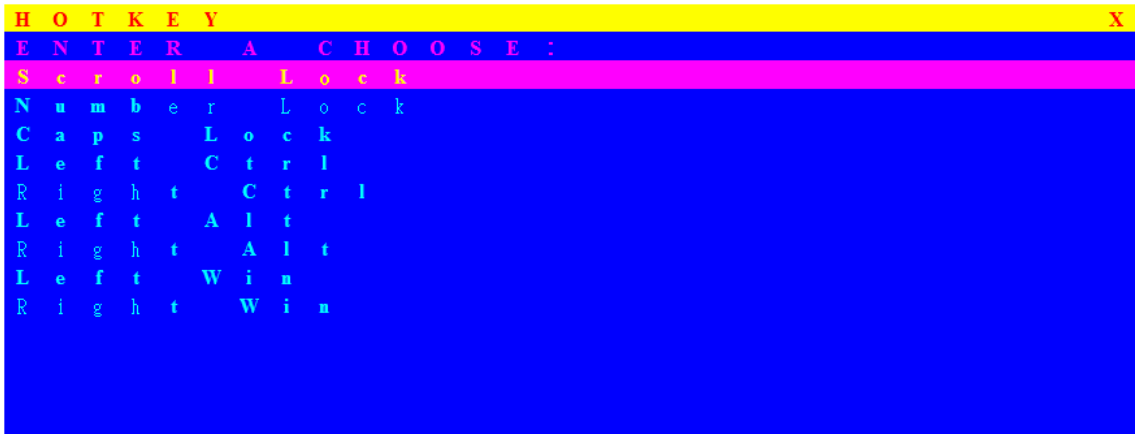


Figure 4-24. Hotkey

OSD Function Key	Description
Enter	Select
→ ↑ ← ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-12. OSD Function Key

Some keyboard may not equip with all the special keys. Make sure the key you select is available in you keyboard.

4.9.3.7 TIME SETTINGS

Figure 4-25. Time Settings

OSD Function Key	Description
Enter	Save
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-13. OSD Function Key

The “SCAN TIME: 10 SEC” means that scan interval from one PC port to next PC port. The default SCAN time is 10 seconds and the maximum scan time is 99 seconds, can not use number pad. Press “**Enter**” key to save SCAN TIME

4.9.3.8 OSD MOUSE

You can change the move speed of mouse cursor in his item. There are three levels you can choose in it. The fastest move speed is “FAST”, the second is “MIDDLE” and the slowest is “SLOW”. Using "⬆” and “⬇” key on keyboard to move highlight bar and select what move speed you want to use. After press Enter Key, the mouse cursor move speed will change.

Figure 4-26. OSD Mouse

OSD Function Key	Description
Enter	Save
↑ / ↓	Move
F1	Go to Main Menu
F2	Console off
F3	Back
Esc	Exit

Table 4-14. OSD Function Key